

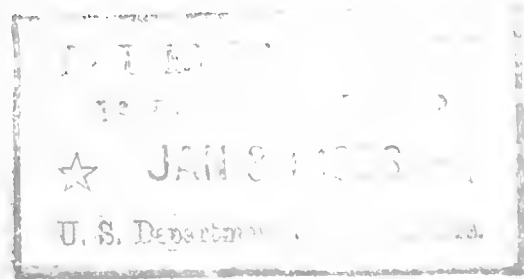
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Do not assume content reflects current scientific knowledge, policies, or practices.



62,23

# Better Chrysanthemums for 1936



The matter of quality is of prime importance in any crop we grow. Second-grade stock is unprofitable these days, especially in Chrysanthemums. There are three phases to growing better mums. Good growing methods is an important one, so is starting with clean, vigorous stock. Of prime importance is the use of improved or the better kind. Cost of growing them is not greater than is that of inferior ones, and the difference in returns is frequently the profit.

We realize that the behavior of varieties varies in different sections, so does the preference for forms and colors. However, certain kinds are standard and good everywhere. In our notes on varieties in the last pages of this catalogue, we suggest some that we are certain will be found valuable. We are glad to be of further service along this line, and please bear in mind, that there is a saving on orders placed two months in advance of delivery.

*Please submit to us a list of your mum requirements.*

The last pages of this catalogue are used for a description of our method of black cloth shading for September flowering. Chances are it will interest you.

***ORDER EARLY and avoid disappointment***

**Geo. J. Ball, Inc., West Chicago, Ill.**

"Enclose Your Mum With Your Seed Order"

# Terms and Rates

ORDER EARLY. While our stock is large, in most varieties, shortages do occur, especially late in the season. Order at once. Nothing gained by delay.

250 of any variety at the 1000 rate.

1000 (any number of varieties, not less than 25 of a kind) in a single order at the 1000 rate.

Below are listed the rates per hundred of our several classes, and opposite each rate is indicated the corresponding rate per ten:

Where the

price per 100 is:	\$3.00	\$4.00	\$5.00	\$6.00	\$7.00	\$8.00	\$10.00	\$12.00	\$15.00
The price per 10 is:	.50	.50	1.00	1.00	1.25	1.50	1.50	2.00	2.50

PLEASE NOTE we recommend ordering no less than 25 of a variety. Where fewer are ordered, charges will be made at the rate per ten.

## Large — or Small Orders

Have you ever figured all the costs of producing mum cuttings—the all-winter cost of a light bench, the continual fight to keep them clean, cuttings lost in the sand when it gets hot, and sometimes loss in not having the stock when wanted? Some insecticide bills used in fighting midge through spring and summer would alone pay for a lot of good cuttings. The production of clean, dependable mum cuttings has become a specialized business for the reason that it doesn't pay most growers to bother with them. If interested in a large—or small—order, let us hear from you.

All our mum stock is propagated for us at Barberton, Ohio, from where it is shipped. It is guaranteed clean, free of disease, well rooted, carefully packed, and to reach you in good order.

## Novelty Section

We are pleased to announce that we are disseminating introductions of Mr. V. R. De Petris, Detroit, Michigan, and The Bristol Nurseries, Inc., Bristol, Connecticut.

Descriptions of their 1936 introductions which appear on succeeding pages are furnished by the originators, but all of these varieties have been grown by us one or more years and have our unqualified approval.

In addition, we are offering a number of sports of merit, descriptions of which you will find in the novelty section.

"Enclose Your Mum With Your Seed Order"

# De Petris' Introductions

## BEUNETA

A large button pompon flowering in late November. It produces rigid, well flowered sprays of many bronze flowers tipped with gold.

It is desirable because it is different from any other variety which comes into bloom at this time. A sturdy grower and a good producer.

Price: \$15.00 per 100, \$125.00 per 1000.

## TAGOYA

An outstanding single producing rigid, well formed sprays with flowers of excellent substance. Its color is a brilliant Goya-red overlaid with a rose sheen forming a brilliant and very attractive combination.

Its habit of growth is very sturdy but somewhat dwarf, making the variety suitable for pot plants. The variety is very productive and does not require disbudding.

Tagoya was awarded the Chrysanthemum Society of America Silver Medal for the best undis-seminated single for 1935 and has been admired by all who have seen it.

Matures November 1st to 5th.

Price: \$15.00 per 100, \$125.00 per 1000.

## ORCHID BEAUTY

An unusually attractive anemone with very rigid habit of growth and perfect spray formation requiring no disbudding.

The color is most unusual, being an intense orchid with a light golden cushion.

It matures about the middle of November and is distinct from any other anemone flowering at that time. Winner of the Chrysanthemum Society of America Silver Medal in 1935.

Price: \$15.00 per 100, \$125.00 per 1000.

## TOM PEARSON

A late midseason spray pompon of unusually productive and sturdy habit of growth with rigid stems carrying well flowered sprays.

Its color is an intense deep gold, the full center forming an emerald gold cast producing a very attractive contrast. Flowers possess excellent substance as well as fullness.

Because of its color, substance and productiveness we predict this variety will be grown in great quantities despite its midseason-flowering habit.

Price: \$15.00 per 100, \$125.00 per 1000.

# New Greenhouse Pompon Introductions by Bristol Nurseries, Inc.

## GLOW

(Seedling 53-32.) We believe we have in this variety the finest "Quality" pompon yet introduced. It has a color that sells on sight. A glowing orange, with deep reddish orange shades at the center; vivid, yet without the harsh tones that are generally found in the orange varieties.

The individual flower is about 2 inches across, of perfect rounded form, carried several to a spray and so well placed that each flower appears to advantage. Growth wiry and erect, beautiful to look at on the bench. Production good for a fancy pompon, keeping qualities excellent. Ready to cut Thanksgiving, it can be grown cool for mid-December cutting. Spaced 7 inches by 7 inches it is a money-maker. Height 3½ to 4 feet. Awarded C. S. A. Silver Medal—Highest award for Seedling Pompon at Detroit 1935. Also Silver Medal Special Class for most distinct and meritorious novelty selected from seedling classes at Detroit 1935.

Price: \$15.00 per 100, \$125.00 per 1000.

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# New Greenhouse Pompon Introductions (Continued)

## BUTTERCUP

(Seedling 111-33ck.) Not just another yellow. It will prove, we believe, the best yellow yet introduced for late December cutting. The flowers are large, 2½ to 3 inches across, of good form and produced in branching sprays. Color, pure buttercup-yellow. Growth, strong and healthy; about 4 feet under average culture. Having the fine keeping qualities which characterize November Bronze and The Bristolite, our previous introductions, it will prove a popular and highly profitable market variety. It ships well, grows and propagates freely and should be planted 8 inches by 8 inches for best production. Matures December 5th.

Price: \$15.00 per 100, \$125.00 per 1000.

## FEZ

(Seedling 20-26.) A distinct variety, the outstanding feature of which is perfection in form and color. The flowers are small, about 1½ inches across, and the essence of neatness in form and arrangement. The color a fine chestnut-crimson that commands attention on the market. Growth upright and sturdy, producing well branched sprays. This variety has been grown for several seasons by growers who handle some of our seedlings under a royalty basis. It keeps splendidly and will prove profitable if you have an outlet that appreciates quality. Height 3½ to 4 feet. Season November 10th.

Price: \$10.00 per 100, \$90.00 per 1000.

# Introductions from Various Growers

## YELLOW BLANCHE (Ziechmann Floral Co.)

A yellow sport from variety Blanche and like it in every respect excepting color. It has been grown commercially for several years and has met with the approval of the trade.

Price: \$12.00 per 100, \$100.00 per 1000.

## YELLOW AMBASSADOR

This yellow sport from Ambassador has been found in a number of places and is offered to the trade this year for the first time. The worth of its parent is well known, which should assure a good reception in the trade.

Price: \$12.00 per 100, \$100.00 per 1000.

## RED ROLINDA

The color is red—identical with The Titan. In other respects it is like Rolinda from which this variety sported. The merits of variety Rolinda are well known and this break in color should make a decided contribution.

Price: \$12.00 per 100, \$100.00 per 1000.

## YELLOW ROLINDA

A sport from Rolinda and like it in every respect excepting color, which is a deep golden yellow either disbudded or in sprays.

Price: \$12.00 per 100, \$100.00 per 1000.

# Odd Formed—Feathery and Thread-Like Varieties

Name and Description	Height	Select Bud	Matures	Price	
				Per 100	Per 1000
Patricia Grace. Shell-pink.....	Medium		Nov. 10	\$10.00	\$90.00
Peggy Ann Hoover. Lavender.....				10.00	90.00
Pride of Tokyo. Creamy pink. A novelty with odd tubular petals.....	Tall	Aug. 25	Nov. 10	10.00	90.00
Rayonnante. Pale rose-pink.....				10.00	90.00

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# Large Flowering Commercial Varieties

## NOTE:

Where variety Gladys Pearson is ordered, original stock will be shipped.

When Dark Bronze Gladys Pearson is wanted, variety Oak Leaf will be shipped.

In this catalogue are several duplications of names as follows:

DIANA—A white pompon.

DIANA—A hardy Korean variety.

INNOCENCE—A hardy variety listed under Korean varieties.

SMITH'S INNOCENCE—A white anemone-flowered variety listed under anemones.

YELLOW DOT—A small yellow pompon variety.

YELLOW DOT (Jablonsky)—A yellow sport of Pink Dot.

GRENADIER—A red pompon variety.

GRENADIER (Hardy)—A hardy variety listed among the hardies.

When ordering any of these varieties, please specify clearly which is intended.

Name and Description	Height	Select Bud	Matures	Price	
				Per 100	Per 1000
Ambassador. White. Largest early Chrysanthemum .....	Medium	Terminal Bud	Oct. 16-20	\$3.00	\$25.00
Antique. Mahogany-bronze. Sport of Dr. Enguehard .....	Medium	Sept. 5	Thanksgiving	3.00	25.00
Andrew Schmidt. Pink. Dark sport of Seidewitz .....	Tall	Sept. 5	Thanksgiving and Later	3.00	25.00
Apricot Queen. Orange .....	Short	Sept. 5	Oct. 25	10.00	90.00
Betsy Ross. White .....	Tall	Aug. 25	Nov. 5	3.00	25.00
Camilla. White .....	Tall	Aug. 25	Oct. 18	3.00	25.00
Cardonia. Deep, rich yellow.....	Medium	Terminal Bud	Nov. 1-7	3.00	25.00
Celestra. Yellow .....	Medium	Terminal Bud	Oct. 10	3.00	25.00
Chadwick, Bronze. Bronze.....	Medium	Terminal Bud	Thanksgiving	4.00	35.00
Chadwick, Golden. Yellow.....	Medium	Terminal Bud	Thanksgiving	4.00	35.00
Chadwick, Pink. Pink .....	Medium	Terminal Bud	Thanksgiving	4.00	35.00
Chadwick, White. White .....	Medium	Terminal Bud	Thanksgiving	4.00	35.00
Chas. Rager. White .....	Medium	Sept. 15	Nov. 10	3.00	25.00
Chas. W. Johnson. White .....	Medium	Sept. 10	Oct. 25	3.00	25.00
Chattanooga. White .....	Medium	Sept. 20	Nov. 28	3.00	25.00
Chieftain. Pink .....	Short	Aug. 31	Nov. 1	3.00	25.00
Christina. White. Sport of Rose Cho- chard .....	Short	Aug. 15	Oct. 20	3.00	25.00
Chrysolora. Yellow .....	Medium	Aug. 15	Oct. 15	3.00	25.00
Citronella. Yellow. Excellent shipper.	Short	Aug. 31	Oct. 25	3.00	25.00
Clara B. Ford. Yellow .....	Medium	Sept. 20	Nov. 20	3.00	25.00
Coahoma. Yellow .....	Medium	Terminal Bud	Late Oct.	3.00	25.00
Columbus Dispatch. Yellow. Large bloom .....	Medium	Sept. 1	Nov. 15	3.00	25.00
Corona. Deep yellow .....	Tall	Terminal Bud	Oct. 25	3.00	25.00
December Beauty. White, tinged with pink .....	Medium	Oct. 1-10	Dec. 1	3.00	25.00
December Glory. White .....	Medium	Sept. 30	Dec. 1	3.00	25.00
Detroit News. Bronze.....	Medium	Aug. 30	Oct. 25	3.00	25.00
Distinction. Pink .....	Medium	Terminal Bud	Thanksgiving	3.00	25.00

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# Large Flowering Commercial Varieties (Continued)

Name and Description	Height	Select Bud	Matures	Price	
				Per 100	Per 1000
Dr. Enguehard. Rose-pink .....	Medium	Sept. 5	Thanksgiving	3.00	25.00
Dorianda. Bronze .....	Short	Aug. 25	Oct. 25	3.00	25.00
Early Frost. White .....	Short	Early	Early	3.00	25.00
Edgar Stillman Kelly. White.....	Medium	Sept. 15	Nov. 15	3.00	25.00
Edwin Seidewitz. Bright pink.....	Tall	Sept. 5	Thanksgiving	3.00	25.00
Evening Glow. Yellow .....	Medium	Sept. 10	Oct. 25	10.00	90.00
Evening Star. Pink .....	Tall	Sept. 5	Nov. 1	5.00	40.00
Favorite. White .....	Tall	Sept. 5	Nov. 15	3.00	25.00
Floyd Gibbons. Salmon-pink with buff reverse .....	Short	Sept. 15	Nov. 8	3.00	25.00
Friendly Rival. Golden yellow.....	Medium	Sept. 10	Thanksgiving	3.00	25.00
Garnet King. Red .....	Short	Sept. 20	Nov. 20-30	3.00	25.00
Gladys Pearson. Bronze .....	Medium	Sept. 30	Nov. 20-30	3.00	25.00
Glenview. Bronze.....	Short	Sept. 10	Nov. 24	3.00	25.00
Glitters. Bronze .....	Medium	Terminal Bud	Nov. 1	3.00	25.00
Gold Lode. Yellow .....	Medium	Aug. 25	Oct. 1	3.00	25.00
Golden Bronze. Golden yellow with tints of bronze .....	Tall	Terminal Bud	Oct. 25	3.00	25.00
Golden Celebration. Yellow .....	Tall	Sept. 15	Nov. 20	3.00	25.00
Golden Glory. Yellow .....	Short	Aug. 25	Nov. 1	3.00	25.00
Golden Glow, Imp. Yellow .....	Medium	July 10	Sept. 1	3.00	25.00
Golden Mrs. Ross. Golden yellow. Sport of Nellie T. Ross.....	Tall	Early Oct.	Nov. 28	3.00	25.00
Golden October. Rich golden yellow.	Medium	Terminal Bud	Oct. 10	3.00	25.00
Golden Pearson. Yellow. Sport of Gladys Pearson .....	Medium	Sept. 30	Thanksgiving	3.00	25.00
Golden Queen. Yellow.....	Medium	Aug. 10	Oct. 25	3.00	25.00
Golden Seidewitz. Yellowish bronze. * Sport of Edwin Seidewitz.....	Tall	Sept. 5	Thanksgiving	3.00	25.00
Golden Tints. Bright yellow.....	Short	Aug. 5-25	Oct. 10	5.00	40.00
Golden Topaz. Golden yellow.....	Medium	Sept. 10	Nov. 10	3.00	25.00
Golden Wave. Yellow .....	Short	Sept. 5	Oct. 20	3.00	25.00
Good News. Yellow. Sport of Detroit News .....	Medium	Aug. 30	Oct. 25	7.00	65.00
Governor Green. Crimson, with old gold reverse .....	Short	Aug. 15	Oct. 15	3.00	25.00
Grandes Pink. Pink .....				6.00	50.00
Harvard. Crimson .....	Medium	Sept. 30	Nov. 30	3.00	25.00
Helen Frick. Dark pink .....	Medium	Sept. 10	Thanksgiving	3.00	25.00
Hilda Bergen. Bronze .....	Short	Sept. 10	Oct. 25	3.00	25.00
Honeydew. Yellow .....	Short	Terminal Bud	Nov. 15	3.00	25.00
Immaculate. White .....	Medium	Terminal Bud	Nov. 1-7	3.00	25.00
Imogene. Orange with golden reverse.	Short	Aug. 15	Oct. 25	3.00	25.00
Indianola. Light bronze .....	Medium	Aug. 25	Oct. 8	3.00	25.00
Josephine Lawler. Pink .....	Medium	Terminal Bud	Oct. 20	3.00	25.00
Justrite. Pink .....	Short	Terminal Bud	Oct. 15	3.00	25.00
J. W. Prince. Pink. Dark sport of Chieftain .....	Short	Aug. 30	Nov. 1	3.00	25.00
Keystone. Bronze .....	Medium	Aug. 30	Oct. 22	3.00	25.00

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# Large Flowering Commercial Varieties (Continued)

Name and Description	Height	Select Bud	Matures	Price	
				Per 100	Per 1000
Lustre. Pink .....	Short	Aug. 25	Oct. 8	3.00	25.00
Major Bonnaffon. Yellow .....	Short	Sept. 10	Nov. 20	3.00	25.00
Marie De Petris. Yellow.....	Short	Sept. 15	Nov. 25	3.00	25.00
Mefo. White .....	Medium	Sept. 15	Nov. 20	3.00	25.00
Mistletoe, Bronze. Bronze .....	Medium	Sept. 30	December	3.00	25.00
Mistletoe, Golden. Yellow .....	Medium	Sept. 30	December	3.00	25.00
Mistletoe, Pink. Pink.....	Medium	Sept. 30	December	3.00	25.00
Mistletoe, White, Imp. White .....	Medium	Sept. 30	December	3.00	25.00
Mohawk Chief. Crimson .....	Medium	Oct. 1	Nov. 30	3.00	25.00
Monument. White .....	Medium	Sept. 10	Nov. 5-15	3.00	25.00
Mrs. A. J. Stahelin. Bronze with re- verse petals yellow.....	Medium	Terminal Bud	Nov. 15	3.00	25.00
Mrs. Alex Laurie. Light pink.....	Medium	Sept. 20	Nov. 15	3.00	25.00
Mrs. David F. Roy. Crimson.....	Short	Sept. 15	Nov. 15	3.00	25.00
Mrs. Franklin D. Roosevelt. Bright yellow .....	Tall	Sept. 5-10	Nov. 15	6.00	50.00
Mrs. H. E. Kidder. Bright yellow.....	Medium	Aug. 25	Oct. 25	3.00	25.00
Mrs. Helen K. Johnson. Dark yellow....	Tall	Aug. 20	Oct. 28	5.00	40.00
Mrs. Henry R. Rea. White.....	Medium	Sept. 1	Oct. 25	10.00	90.00
Mrs. Henry Robinson. White.....	Medium	Early	Nov. 1	3.00	25.00
Mrs. Wm. Thaw, Jr. Yellow.....	Tall	Terminal Bud	Nov. 10	6.00	50.00
McNeice. Pink.....	Short	Terminal Bud	Oct. 25	3.00	25.00
Nellie T. Ross. Light yellow.....	Tall	Early Oct.	Nov. 30	3.00	25.00
Oak Leaf. Dark bronze.....	Medium	Sept. 30	Nov. 20-30	3.00	25.00
Oconto. White.....	Medium	Aug. 25	Oct. 15	3.00	25.00
October Rose. Pink.....	Medium	Terminal Bud	Oct. 18	3.00	25.00
Okeda. Reddish bronze.....	Tall	Aug. 1-10	Oct. 1-10	3.00	25.00
Old Rose. Pleasing shade of old rose..	Medium	Terminal Bud	Early Nov.	3.00	25.00
Oscoda. Light lavender with silvery sheen .....	Medium	Sept. 1	Oct. 30	3.00	25.00
Pink Chief. Pink. Very good early pink .....	Tall	Terminal Bud	Oct. 12	3.00	25.00
Pink Delight. Rose-pink. A good pink for the season.....	Tall	Sept. 10	Nov. 1	3.00	25.00
Pink Globe. Pinkish lavender.....	Medium	Sept. 20	Nov. 10	3.00	25.00
Pink Treasure. Pink.....	Short	Sept. 20	Nov. 10	3.00	25.00
Quaker Maid. White.....	Medium	Aug. 25	Oct. 5	3.00	25.00
Reality. Pink.....	Medium	Aug. 5	Oct. 20	3.00	25.00
Richmond. Yellow.....	Medium	Aug. 25	Nov. 1	3.00	25.00
R. M. Calkins. Golden yellow.....	Medium	Sept. 20	Nov. 25-30	3.00	25.00
Rosa Raisa. Pink.....	Short	Sept. 20	Thanksgiving	3.00	25.00
Rose Chochard. Pink.....	Short	Aug. 15	Oct. 20	3.00	25.00
Rose Glory. Pink.....	Medium	Terminal Bud	Oct. 15-20	3.00	25.00
Rose Marie. Pink.....	Tall	Aug. 5	Oct. 1	3.00	25.00
Rose Perfection. Pink.....	Short	Sept. 10	Nov. 5-10	3.00	25.00
Secretary Nehrling. Bright yellow.....	Medium	Aug. 15-20	Nov. 15-20	5.00	40.00
Silver Dawn. White.....	Tall	Aug. 25	Oct. 18-20	3.00	25.00
Silver Sheen. White.....	Medium	Aug. 30	Oct. 20	3.00	25.00
Smith's Early White. White.....	Tall	Aug. 10	Oct. 2	3.00	25.00

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## Large Flowering Commercial Varieties (Continued)

Name and Description	Height	Select Bud	Matures	Price	
				Per 100	Per 1000
Smith's Late White. White.....	Short	Sept. 30	Dec. 15	3.00	25.00
Smith's Peerless. White.....	Medium	Sept. 15	Thanksgiving	3.00	25.00
Smith's Superlative. Bright yellow.....	Medium	Aug. 25	Oct. 25	3.00	25.00
Snow White. White.....	Medium	Terminal Bud	Nov. 1	3.00	25.00
Stately White. White.....	Medium	Terminal Bud	Nov. 1	6.00	50.00
Sunbeam. Bright yellow.....	Medium	Sept. 20	Thanksgiving	3.00	25.00
Sun Glow. Yellow.....	Medium	Aug. 15	Oct. 25	3.00	25.00
Sungold. Yellow .....	Medium	Sept. 30	Thanksgiving	3.00	25.00
Tekonsha. Bronze.....	Medium	Sept. 10	Thanksgiving	3.00	25.00
Thanksgiving Pink. Dark pink.....	Short	Sept. 15	Thanksgiving	3.00	25.00
Timothy Eaton. White.....	Tall	Sept. 15	Nov. 20	3.00	25.00
Tints of Gold. Bronze.....	Medium	Aug. 15	Oct. 10	3.00	25.00
Tom Browne. White.....	Medium	Terminal Bud	Nov. 20-30	3.00	25.00
White Chief. White. Good commer- cial .....	Short	Terminal Bud	Oct. 18	3.00	25.00
White Chieftain. White.....	Short	Aug. 31	Nov. 1	3.00	25.00
White Distinction. White.....	Medium	Terminal Bud	Thanksgiving	3.00	25.00
White Seidewitz. White. Sport of Edwin Seidewitz.....	Tall	Sept. 5	Thanksgiving	3.00	25.00
William Didden. Yellow. Sport of Indianola .....	Medium	Aug. 25	Oct. 8	3.00	25.00
Whittier. Yellow.....	Medium	Sept. 15	Nov. 15	3.00	25.00
Yellow Chattanooga. Light yellow.....	Medium	Sept. 20	Nov. 28	3.00	25.00
Yellow December Glory. Light yellow..	Medium	Sept. 30	Dec. 1	10.00	90.00
Yellow Frost. Yellow.....	Short	.....	Early	3.00	25.00
Yellow Gold. Bright golden yellow....	Tall	Terminal Bud	Nov. 1-15	3.00	25.00
Yellow Mefo. Yellow. Sport of Mefo..	Medium	Sept. 15	Nov. 20	3.00	25.00
Yellow Monument. Yellow. Sport of Monument .....	Medium	Sept. 10	Nov. 5-15	3.00	25.00

## Exhibition Varieties

Name and Description	Height	Select Bud	Matures	Price	
				Per 100	Per 1000
Alice Benson. Early white.....	Medium	Aug. 20	Nov. 1	\$8.00	\$75.00
Carrie Beinecke. Golden bronze.....	Medium	Aug. 20	Oct. 25-Nov. 1	8.00	75.00
Dr. J. M. Inglis. Wine-purple-ama- ranth with silver reverse.....	Tall	Aug. 25	Nov. 1	8.00	75.00
Earl Kitchener. Bronze.....	Medium	Aug. 20	Nov. 10	8.00	75.00
Elberon. Pink.....	Medium	Aug. 30	Nov. 1	8.00	75.00
Francine. Rose with pinkish buff re- verse .....	Medium	Aug. 15	Nov. 15	8.00	75.00
General Pershing. Pink.....	Medium	Aug. 20	Nov. 1	8.00	75.00
Golden Majestic. Bright yellow.....	Medium	Aug. 20	Oct. 25-Nov. 1	8.00	75.00
Grace Sturgis. Wine-red with pinkish silver reverse.....	Tall	Aug. 25	Oct. 20	6.00	50.00
John S. Bush. White.....	Medium	Aug. 15	Oct. 15	8.00	75.00
J. R. Booth. Yellow.....	Medium	Aug. 15	Nov. 1	8.00	75.00

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## Exhibition Varieties (Continued)

Name and Description	Height	Select Bud	Matures	Price	
				Per 100	Per 1000
La France. Purple.....	Medium	Aug. 15	Oct. 28	6.00	50.00
Louisa Pockett. White.....	Medium	Aug. 10	Nov. 1-15	8.00	75.00
Majestic. Clear, shiny amber-bronze..	Medium	Aug. 20	Oct. 25	8.00	75.00
Marian H. Uffinger. Bronzy crimson with a gold reverse.....	Medium	Aug. 20-25	Nov. 1	8.00	75.00
Miss Millicent Rogers. Bronzy pink.....	Medium	Aug. 25	Oct. 20	8.00	75.00
Miss Rita Mitchell. Salmon-bronze with fawn reverse.....	Medium	Aug. 25	Nov. 5	8.00	75.00
Mrs. B. D. Spillman. Apricot-orange....	Medium	Aug. 20	Nov. 1	8.00	75.00
Mrs. G. G. Mason. Blood-red with golden reverse.....	Medium	Aug. 20	Oct. 25-Nov. 1	8.00	75.00
Mrs. H. S. Firestone. Chamois-buff....	Short	Aug. 25	Nov. 1	8.00	75.00
Mrs. Jules Leeds. Blood-red.....	Short	Aug. 25	Nov. 10	8.00	75.00
Mrs. Kershaw. Bronze.....	Short	Aug. 15	Nov. 1	8.00	75.00
Mrs. Woodrow Wilson. White.....	Medium	Aug. 15	Oct. 15	8.00	75.00
Nagirroc. Golden bronze.....	Medium	Aug. 15	Nov. 1	8.00	75.00
Nellie Mitchell. Yellow suffused with bronze .....	Tall	Aug. 25	Nov. 1	8.00	75.00
Niagara. White.....	Medium	Aug. 15	Nov. 5	8.00	75.00
Nerissa. Rosy lavender.....	Medium	Sept. 5	Nov. 5	8.00	75.00
Pockett's Crimson. Crimson with gold- en reverse.....	Short	Aug. 25	Oct. 25	8.00	75.00
Princess Teru. Pink.....	Medium	Aug. 25	Nov. 1	8.00	75.00
Red Majestic. Bronzy red.....	Medium	Aug. 25	Nov. 1	8.00	75.00
Rosanda. Old rose.....	Tall	Sept. 10	Nov. 1	8.00	75.00
Thos. W. Pockett. Pink.....	Medium	Aug. 10	Nov. 1-15	8.00	75.00
Turner, Bronze. Light bronze.....	Medium	Aug. 25	Nov. 5	6.00	50.00
Turner, Pink (Mrs. Leslie Davis.).....	Medium	Aug. 25	Nov. 5	6.00	50.00
Turner, William. White.....	Medium	Aug. 25	Nov. 5	6.00	50.00
Turner, Yellow. Yellow.....	Medium	Aug. 25	Nov. 5	6.00	50.00
Vermont. Pink.....	Tall	Aug. 10	Nov. 1-15	8.00	75.00
Well's Late Buff. Pinkish creamy buff..	Short	Sept. 10	Nov. 5	8.00	75.00
W. H. Waite. Bronze.....	Short	Aug. 15	Nov. 5	6.00	50.00
W. H. Waite, Imp. Red.....	Short	Aug. 15	Nov. 5	6.00	50.00
William Hazelhurst. Pink.....	Short	Aug. 25	Oct. 29	8.00	75.00
Yellow Pockett. Yellow.....	Medium	Aug. 10	Nov. 1-15	8.00	75.00

## Pompons — Large Flowering and Button Types

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
*Acto. Rose-pink.....	Medium	L. Pompon	Nov. 1	\$3.00	\$25.00
Adelphia. White.....	Short	L. Pompon	Oct. 15	3.00	25.00
Adironda. Golden bronze.....	Medium	L. Pompon	Oct. 15	3.00	25.00

\*Good disbudded.

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# Pompons—Large Flowering and Button Types (Continued)

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
Alecia. Bronze.....	Medium	L. Pompon	Oct. 30	3.00	25.00
†Alice. Pink.....	Medium	L. Pompon	Nov. 15	3.00	25.00
*Angelo. Light pink.....	Short	L. Pompon	Oct. 25	3.00	25.00
Ardith. Light pink changing to white..	Medium	L. Pompon	Nov. 15	3.00	25.00
Arlyn. Bronzy yellow.....	Short	L. Pompon	Nov. 15	3.00	25.00
Autumn Glints. Yellow with crimson center .....	Medium	L. Pompon	Nov. 1	3.00	25.00
Azora. Light pink.....	Tall	L. Pompon	Oct. 25	5.00	40.00
†Baby. Yellow.....	Short	S. Button	Nov. 10	3.00	25.00
*Balandus. Light pink with cream reverse .....	Medium	L. Pompon	Oct. 25	3.00	25.00
†*Ball of Gold. Yellow.....	Medium	L. Pompon	Nov. 20	3.00	25.00
Becky McLane. Bronze.....	Medium	Button	Nov. 25	3.00	25.00
Betty Price. Brilliant orange suffused with light bronze.....	Medium	Button	Nov. 25	3.00	25.00
Betty Watkins. Bronzy yellow.....	Medium	L. Pompon	Thanksgiving	3.00	25.00
Big Baby. Yellow.....	Medium	Button	Thanksgiving	3.00	25.00
Bokhara. Bronze.....	Medium	L. Pompon	Oct. 25	3.00	25.00
†Bonniel. Orange-buff.....	Short	L. Pompon	Oct. 15	3.00	25.00
Bonnie Maid. Pink.....	Medium	Button	Oct. 18	3.00	25.00
†Bright Eyes. Bluish white with apricot eye .....	Short	Button	Nov. 1	3.00	25.00
Bristolite. Bronze.....	Medium	L. Pompon	Thanksgiving	7.00	65.00
Bronze Beauty. Bronze.....	Medium	L. Pompon	Thanksgiving	7.00	65.00
Bronze Doty. Bronze.....	Medium	L. Pompon	Nov. 1	3.00	25.00
Bronze Erialinda. Dark bronze.....	Medium	L. Pompon	Oct. 25	3.00	25.00
Bronze Queen. Bronze.....	Tall	Button	Oct. 25	3.00	25.00
Bronze Usona. Bronzy orange.....	Medium	L. Pompon	Thanksgiving	3.00	25.00
Brownie. Dark bronze.....	Medium	S. Button	Nov. 10	10.00	90.00
Campfire .....	Tall	L. Pompon	Nov. 20	7.00	65.00
Capt. Cook. Pink.....	Tall	L. Pompon	Oct. 20	3.00	25.00
*Cazlonia. Rose-pink with mauve reverse .....	Medium	L. Pompon	Oct. 25	3.00	25.00
Chicago Pearl. White.....	Medium	L. Pompon	Nov. 15	3.00	25.00
Christmas Gold. Bright yellow.....	Medium	S. Button	Dec. 1	3.00	25.00
Clara Jameson Imp. Bronze.....	Medium	Button	Oct. 16	3.00	25.00
Clare. White.....	Short	S. Button	Nov. 15	3.00	25.00
Claudette. Yellow.....	Short	Button	Oct. 30	10.00	90.00
Clista. Yellow.....	Short	S. Button	Nov. 10	10.00	90.00
Clorinda. Bronze.....	Medium	L. Pompon	Thanksgiving	3.00	25.00
Cora Peck Buhl. Yellow.....	Tall	L. Pompon	Oct. 25	3.00	25.00
Cordova. White. A good late variety.	Medium	L. Pompon	Thanksgiving	3.00	25.00
*Crimson Sheen. Purplish amaranth..	Medium	L. Pompon	Oct. 20	5.00	40.00
*Crystal White. White.....	Tall	L. Pompon	Nov. 10	3.00	25.00
Dainty Maid. White with pink tints in some stages .....	Medium	S. Button	Nov. 1	3.00	25.00
Diana. White.....	Medium	L. Pompon	Nov. 20	3.00	25.00

\*Good disbudded.  
 †Good as pot plants.

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# Pompons—Large Flowering and Button Types (Continued)

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
Dorothy Turner. Bronze.....	Medium	L. Pompon	Thanksgiving	3.00	25.00
†Dotson. Old rose.....	Short	Button	Oct. 20	3.00	25.00
Dream. Pink.....	Medium	L. Pompon	Nov. 20	3.00	25.00
Earliwhite .....	Medium	L. Pompon	Oct. 10	3.00	25.00
*Edith Newberry. Orange-rust.....	Tall	L. Pompon	Nov. 5	3.00	25.00
Elora. Pearly white.....	Tall	L. Pompon	Nov. 1-10	3.00	25.00
Ermalinda. Old rose.....	Medium	L. Pompon	Oct. 25	3.00	25.00
†Ethel. Bronze.....	Medium	Button	Oct. 25	3.00	25.00
*Fire Ball. Bright crimson.....	Tall	L. Pompon	Nov. 2	5.00	40.00
Fire Bird. Red-bronze.....	Medium	L. Pompon	Oct. 25	3.00	25.00
Flame. Bright red.....	Tall	L. Pompon	Nov. 1-7	3.00	25.00
†Frank Wilcox, Jr. Bronze.....	Short	Button	Thanksgiving	3.00	25.00
Galva. Bronze with golden reverse.....	Medium	S. Button	Oct. 30	10.00	90.00
Ginza. Yellow.....	Medium	L. Pompon	Oct. 30	3.00	25.00
*Gold Coin. Yellow.....	Medium	L. Pompon	Dec. 1	3.00	25.00
Gold Finch. Deep, rich yellow.....	Medium	L. Pompon	Oct. 20	3.00	25.00
†Gold Mine. Yellow.....	Short	Button	Nov. 1	3.00	25.00
Gold Tips. Bronze and gold.....	Medium	L. Pompon	Thanksgiving	3.00	25.00
Golden Climax. Yellow.....	Medium	Button	Nov. 15	3.00	25.00
Golden Varsity. Yellow (Sport of Varsity. Deeper color).....	Short	S. Button	Nov. 10	7.00	65.00
†Golden Fringe. Very bright yellow....	Short	Button	Nov. 20	5.00	40.00
†Golden Gimp. Bright yellow with a very slight apricot tinge on reverse side .....	Medium	Button	Nov. 5	5.00	40.00
*Golden Herald. Deep golden yellow.	Medium	L. Pompon	Oct. 10-15	3.00	25.00
Golden Nymph. Bronze with reverse of petals gold, making finished bloom yellow.....	Medium	S. Button	Dec. 10	3.00	25.00
Golden Sceptre. Bright yellow.....	Tall	L. Button	Nov. 25	3.00	25.00
Golden Splendor. Bright yellow.....	Medium	Button	Nov. 6	10.00	90.00
†Governor Lake. Reddish bronze.....	Short	L. Pompon	Thanksgiving	3.00	25.00
Grenadier. Rich, deep red.....	Medium	L. Pompon	Nov. 10	3.00	25.00
Greta. White.....	Medium	L. Pompon	Oct. 20	3.00	25.00
High Lights. Fully developed white with salmon eye.....	Tall	Button	Nov. 3	10.00	90.00
Hilda Canning. Bronze.....	Tall	Button	Nov. 25	3.00	25.00
Ida Improved. Yellow.....	Medium	L. Pompon	Oct. 10	3.00	25.00
†Irene. White .....	Short	Button	Oct. 15-20	3.00	25.00
*Irene Rich. Pink.....	Medium	L. Pompon	Nov. 1	3.00	25.00
Iridescent. Gold and pink in various shades .....	Medium	L. Pompon	Oct. 15	3.00	25.00
Juva Nicholson. Yellow.....	Medium	L. Pompon	Nov. 15	3.00	25.00
Jemima. Bronze.....	Medium	L. Button	Oct. 28	3.00	25.00
†Jewell. Bright pink.....	Short	L. Button	Oct. 1-15	3.00	25.00
Joan. Bronzy orange.....	Medium	L. Pompon	Nov. 20	3.00	25.00
Joan Wells. Bronze. Sport of Pink Dot.	Medium	L. Pompon	Oct. 25	3.00	25.00

\*Good disbudded.

†Good as pot plants.

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# Pompons—Large Flowering and Button Types (Continued)

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
Justine Miller. Reddish bronze.....	Medium	Button	Nov. 20-25	3.00	25.00
La Vera. Pink.....	Medium	L. Pompon	Nov. 1-10	6.00	50.00
Legal Tender. Bronze and gold.....	Medium	L. Pompon	Nov. 20	3.00	25.00
Leilah. Rose-pink.....	Tall	L. Pompon	Oct. 15	3.00	25.00
Letha. Reddish brown.....	Medium	S. Button	Oct. 25	10.00	90.00
Letitia. White with pink center.....	Tall	L. Button	Oct. 15	3.00	25.00
Lilac. Pink.....	Tall	L. Pompon	Oct. 15	3.00	25.00
*Lillian Doty. Shell-pink.....	Medium	L. Pompon	Nov. 1	3.00	25.00
Lizzie Adcock (Yellow Source d'Or)....	Medium	L. Pompon	Nov. 1	3.00	25.00
Louise Davenport. Bronze.....	Medium	Button	Nov. 10	3.00	25.00
†Lois. Golden yellow.....	Medium	L. Pompon	Nov. 18	3.00	25.00
Lucinda. Deep pink.....	Tall	L. Pompon	Nov. 12-20	3.00	25.00
Marcella. Light pink.....	Medium	L. Pompon	Nov. 25 & Later	3.00	25.00
†Margot. White.....	Short	Button	Oct. 8	3.00	25.00
Marguerite Clark. Rose-pink.....	Medium	Button	Nov. 5	3.00	25.00
*Marianna. White.....	Medium	L. Pompon	Nov. 1-5	3.00	25.00
Marilyn. Orange-tan.....	Medium	L. Pompon	Oct. 22	3.00	25.00
Mary Lennon Hall. Clear, rich yellow.	Tall	L. Pompon	Nov. 1	3.00	25.00
†Mary Pickford. White.....	Short	Button	Nov. 1	3.00	25.00
*Masaka. Yellow.....	Medium	L. Pompon	Oct. 20	10.00	90.00
Minong. White.....	Short	Button	Oct. 20-25	3.00	25.00
Modena. Yellow.....	Medium	L. Button	Nov. 30	3.00	25.00
†Mrs. Beu. Bronze.....	Short	L. Pompon	Thanksgiving	3.00	25.00
Mrs. N. G. Moore. Pure white. Sport of Olivia.....	Medium	L. Pompon	Dec. 1-10	10.00	90.00
*Muskoka. Bronze.....	Tall	L. Pompon	Nov. 10	3.00	25.00
My Pride. Pink.....	Tall	L. Pompon	Oct. 20	3.00	25.00
Nellie Kleris. Lavender-pink.....	Tall	L. Pompon	Oct. 25	3.00	25.00
New York. Bronze.....	Medium	Button	Nov. 15	3.00	25.00
Norrine. Yellow.....	Medium	Button	Nov. 25	3.00	25.00
†November Bronze. Orange-bronze. Very good.....	Medium	L. Pompon	Nov. 15	3.00	25.00
November Gold. Yellow.....	Medium	L. Pompon	Nov. 15	3.00	25.00
Nubian. Bronzy red.....	Tall	L. Pompon	Oct. 15-20	3.00	25.00
†Nuggets. Yellow.....	Short	Button	Oct. 25	3.00	25.00
Olivia. Pink.....	Medium	L. Pompon	December	3.00	25.00
†Onargo. Light bronze.....	Medium	Button	Nov. 1	5.00	40.00
Ouray. Dark scarlet.....	Medium	L. Pompon	Oct. 25	3.00	25.00
Pagosa. Dark pink.....	Medium	L. Pompon	Dec. 5	3.00	25.00
†Patsy Dowd. Red.....	Short	Button	Nov. 5	5.00	40.00
Pauline Wilcox. Bronze.....	Medium	L. Pompon	Nov. 5	3.00	25.00
Pink Dot. White with bright pink center .....	Medium	L. Pompon	Oct. 25	3.00	25.00
Pink Popcorn. Pink.....	Medium	S. Button	Oct. 30	3.00	25.00
Princeton. Golden yellow suffused with orange.....	Medium	L. Pompon	Nov. 15	7.00	65.00
†Red Beu. Reddish bronze.....	Short	L. Pompon	Thanksgiving	3.00	25.00

\*Good disbudded.

†Good as pot plants.

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# Pompons—Large Flowering and Button Types (Continued)

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
Red Wings. Red.....	Medium	L. Pompon	Nov. 15	3.00	25.00
Robin Hood. Rich deep red.....	Medium	Button	Early Nov.	6.00	50.00
†Rodell. Yellow.....	Short	Button	Oct. 15	3.00	25.00
Rodell Imp. Sport of Rodell, producing larger flowers.....	Short	Button	Oct. 20	10.00	90.00
Roman Bronze. Bronze. Sport of Capt. Cook .....	Tall	L. Pompon	Oct. 20	3.00	25.00
*Romola. Soft pink.....	Medium	L. Pompon	Nov. 5	10.00	90.00
*Rose Charm. Rose-pink.....	Medium	L. Pompon	Nov. 1	3.00	25.00
Roselea. Pink.....	Tall	L. Pompon	Dec. 1	3.00	25.00
Rowenna. Bronze.....	Tall	L. Pompon	Thanksgiving	3.00	25.00
Royal Queen. White.....	Medium	L. Pompon	Dec. 5	3.00	25.00
Sarda. Deep pink. Sport of Pink Dot.	Medium	L. Pompon	Oct. 25	3.00	25.00
*Sea Gull. White. Excellent for sprays or disbudded .....	Medium	L. Pompon	Nov. 1	3.00	25.00
*Silver Ball. White.....	Medium	L. Pompon	Oct. 12	3.00	25.00
Silver Star. White. Desirable for those who want very late varieties.....	Tall	L. Pompon	Dec. 5	3.00	25.00
Silver Tips. Bright pink with silver tips.	Medium	L. Pompon	Nov. 10	3.00	25.00
*Snow Bird. White.....	Medium	L. Pompon	Nov. 15	3.00	25.00
Snow Cloud. White.....	Medium	L. Pompon	Oct. 15	3.00	25.00
Source d'Or. Bronze.....	Medium	L. Pompon	Nov. 1	3.00	25.00
Thanksgiving Gem. Orange-bronze....	Medium	Button	Thanksgiving	3.00	25.00
*Thyra. Dark pink.....	Tall	L. Pompon	Nov. 1	5.00	40.00
Tonquin. Rose color.....	Medium	L. Pompon	Dec. 10	3.00	25.00
*Unalga. Yellow.....	Medium	L. Pompon	Nov. 25	3.00	25.00
Usona. Pink.....	Medium	L. Pompon	Thanksgiving	3.00	25.00
Uvalda. White.....	Medium	L. Pompon	Oct. 10	3.00	25.00
†Varsity. Yellow.....	Short	Button	Nov. 10	3.00	25.00
*Vera Victoria. Yellow.....	Medium	L. Pompon	Nov. 1	3.00	25.00
†Wee Dot. Bronze. Very small.....	Short	S. Button	Oct. 25	3.00	25.00
Western Beauty. Old rose.....	Short	L. Pompon	Nov. 15-25	3.00	25.00
White Caps. White.....	Medium	L. Pompon	Early Nov.	3.00	25.00
*White Doty. White.....	Medium	L. Pompon	Nov. 1	3.00	25.00
White Wings. White.....	Medium	L. Pompon	Oct. 10	3.00	25.00
Yellow Bird. Yellow.....	Medium	L. Pompon	Nov. 18	3.00	25.00
†Yellow Dot. Lemon-yellow.....	Short	S. Button	Nov. 10	3.00	25.00
Yellow Dot. (Jablonsky) Yellow. Sport of Pink Dot.....	Medium	L. Pompon	Oct. 25	3.00	25.00
*Yellow Doty. Yellow.....	Medium	L. Pompon	Nov. 1	3.00	25.00
†Yellow Fellow. Yellow.....	Medium	L. Pompon	Nov. 15	3.00	25.00
*Yellow Muskoka. Bronzy yellow.....	Tall	L. Pompon	Nov. 10	3.00	25.00
Yellow New York. Yellow. Sport of New York .....	Medium	Button	Nov. 15	3.00	25.00
Yellow Silver Star. Yellow. Sport of Silver Star.....	Tall	L. Pompon	Dec. 10	10.00	90.00
†Yuletide, White. White.....	Short	L. Pompon	Dec. 1	3.00	25.00

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†Good as pot plants.

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Pompons — Large Flowering and Button Types (Continued)

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
†Yuletide, Yellow. Yellow.....	Short	L. Pompon	Dec. 1	3.00	25.00
†*Yuvawn. Yellow.....	Medium	L. Pompon	Nov. 25	3.00	25.00
Zenobia. Yellow.....	Short	L. Pompon	Oct. 10-20	3.00	25.00
Zoe. Golden bronze.....	Medium	L. Button	Nov. 20	3.00	25.00
Zora. Yellow.....	Short	L. Pompon	Oct. 15-20	3.00	25.00
Zoroka. Yellow with bronze tip.....	Medium	Button	Oct. 30	10.00	90.00

Single Varieties — Daisy Type

Name and Description	Height	Matures	Price	
			Per 100	Per 1000
Aloma. Terra cotta bronze with yellow center.....	Medium	Oct. 15	\$3.00	\$25.00
†Buckingham, Bronze. Bronze.....	Short	Nov. 5	3.00	25.00
†Buckingham, W. H. Pink.....	Short	Nov. 5	3.00	25.00
Charter Oak. Yellow.....	Tall	Nov. 25	3.00	25.00
Christmas Cheer. Scarlet. Sport of Mrs. E. D. Godfrey.	Medium	Thanksgiving	3.00	25.00
Dusky Maid. Yellow.....	Medium	Thanksgiving	3.00	25.00
Elizabeth Firestone. Pink.....	Medium	Nov. 15 & Later	3.00	25.00
Elizabeth McDowell. Bronze.....	Medium	Nov. 15	3.00	25.00
Golden Mensa. Yellow.....	Medium	Nov. 10	3.00	25.00
Gretchen Piper. Deep glowing yellow.....	Medium	Oct. 25	3.00	25.00
Helen Hubbard. Red.....	Medium	Thanksgiving	3.00	25.00
†Ida Skiff. Bronze.....	Short	Nov. 1	3.00	25.00
*Jean. White.....	Medium	Nov. 1	3.00	25.00
Margaret Waite. Cerise-pink. Sport of Mrs. E. D. Godfrey .....	Tall	Thanksgiving	3.00	25.00
†*Melba. Reddish bronze in unusual shades.....	Medium	Nov. 5	3.00	25.00
Minnesota. Blood-red.....	Tall	Nov. 10	3.00	25.00
Miss Gladys. Bronze. Sport of Mrs. E. D. Godfrey.....	Medium	Thanksgiving	3.00	25.00
Miss Isabelle. Bronze.....	Tall	Thanksgiving	3.00	25.00
Mrs. E. D. Godfrey. Light pink.....	Medium	Thanksgiving	3.00	25.00
Mrs. Herbert Hoover. Orange-bronze.....	Medium	Thanksgiving	3.00	25.00
Murray Hill Beauty. Old rose.....	Medium	Thanksgiving	3.00	25.00
Radiant. Bright red.....	Medium	Nov. 5-10	10.00	90.00
*Red Rover. Crimson-orange.....	Medium	Nov. 5	7.00	65.00
Rich Red. Red.....	Medium	Nov. 10	3.00	25.00
Ruth Adams. Bronze.....	Medium	Nov. 5	3.00	25.00
Ruth Warren Smith. Golden buff-yellow overlaid with red .....	Medium	Nov. 10	3.00	25.00
Sunny Boy. Yellow.....	Medium	Nov. 15	7.00	65.00
†Thanksgiving Bronze. Dark bronze.....	Medium	Thanksgiving	3.00	25.00
Valencia. Orchid-pink.....	Tall	Nov. 30	7.00	65.00
White Godfrey. White.....	Medium	Thanksgiving	3.00	25.00
White Mensa. White.....	Medium	Thanksgiving	3.00	25.00
Yellow Godfrey. Yellow.....	Medium	Thanksgiving	3.00	25.00

\*Good disbudded.

†Good as pot plants.

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# Anemone-flowered Varieties

Name and Description	Height	Matures	Price	
			Per 100	Per 1000
*Adenlair. Shell-pink .....	Medium	Nov. 15-20	\$3.00	\$25.00
*Admiration. Orchid with lighter reverse.....	Medium	Oct. 28	10.00	90.00
*Aloysia. Bright yellow with slight red shading on reverse .....	Medium	Nov. 1	10.00	90.00
†*Beautiful Lady. Bright pink petals with creamy white cushion .....	Short	Nov. 20	3.00	25.00
*Berneita. Shell-pink petals. White cushion.....	Medium	Nov. 1	3.00	25.00
*Betty Rose. Pink, both petals and cushion.....	Medium	Oct. 25-Nov. 1	3.00	25.00
*Birdine. Light orchid .....	Tall	Oct. 28	10.00	90.00
*Blanche. White .....	Medium	Oct. 27	3.00	25.00
*Bronze Graf von Oriola. Bronze, in very striking shades .....	Medium	Nov. 15-20	3.00	25.00
Bronze Volunteer. Rich bronze. Sport of Volunteer....	Medium	Thanksgiving	4.00	35.00
*Buff Queen. Bronzy buff.....	Medium	Nov. 1	6.00	50.00
*Calypso. Orange suffused with pink.....	Tall	Oct. 28	10.00	90.00
*Captivation. Mahogany-red. (Exhibition).....	Tall	Nov. 10	3.00	25.00
*China Rose. Dragon's blood red.....	Medium	Nov. 10	7.00	65.00
*Cremona. White petals with straw-yellow cushion....	Short	Nov. 5	3.00	25.00
†*Crimson Glow. Crimson-maroon.....	Medium	Nov. 25-30	3.00	25.00
*Estrelita. Bronze throughout, with a full regular cushion .....	Medium	Nov. 15 & Later	3.00	25.00
†Eugene Langauet. Bright yellow.....	Short	Thanksgiving	3.00	25.00
*Eva Le Gallienne. Crushed raspberry with center of gold .....	Medium	Oct. 25	12.00	100.00
Garza Supreme. White .....	Short	December	3.00	25.00
Godfrey's Perfection. White .....	Short	Thanksgiving	3.00	25.00
Golden Lida Thomas. Golden yellow.....	Medium	Thanksgiving	3.00	25.00
Golden Pheasant. Yellow.....	Medium	Nov. 25	3.00	25.00
*Golden State. Yellow.....	Tall	Nov. 1	3.00	25.00
†*Graceland. Pure white with yellow center.....	Short	Oct. 25	3.00	25.00
†*Izola. Amaranth .....	Medium	Nov. 1	3.00	25.00
*John Shields. Light yellow.....	Medium	Nov. 10	7.00	65.00
†*Laelia. Rose-pink .....	Short	Nov. 1	3.00	25.00
*La Nona. Petals rosy amaranth, buff cushion.....	Medium	Nov. 20	3.00	25.00
Lida Thomas. White petals and yellow centers.....	Medium	Thanksgiving	3.00	25.00
†Maple Leaf. Red-yellow and bronze.....	Short	Nov. 10	3.00	25.00
†*Margo. Pinkish violet outer petals with high, round, yellow cushion .....	Short	Nov. 5	3.00	25.00
*Marietta. Soft pink with very full cushion.....	Medium	Oct. 20	3.00	25.00
*Maritza. Bright yellow with full, highly rounded cushion .....	Medium	Thanksgiving	3.00	25.00
Mrs. Alfred G. Wilson. White.....	Medium	Nov. 5	3.00	25.00
*Mrs. J. H. Ballagh. Pink.....	Short	Nov. 15	12.00	100.00
*Norma. Orchid-pink petals with golden pink cushion	Medium	Nov. 10-Dec.	3.00	25.00
†*Noveltie. White throughout with large cushion.....	Short	Nov. 15	3.00	25.00
*Orange Glow. Rich orange.....	Medium	Nov. 10	3.00	25.00

\*Good disbudded.

†Good as pot plants.

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## Anemone-flowered Varieties (Continued)

Name and Description	Height	Matures	Price	
			Per 100	Per 1000
†*Pink Lady. Pink petals with light pink cushion.....	Short	Nov. 15	3.00	25.00
*Pink Supreme. Delicate shell-pink petals with cushions somewhat lighter .....	Tall	Nov. 30	3.00	25.00
*Pomona. White petals with straw colored cushion.....	Medium	Nov. 1	3.00	25.00
Purple Queen. Purplish amaranth.....	Tall	Nov. 10	10.00	90.00
Rio Rita. Yellow .....	Medium	Nov. 10	3.00	25.00
†*Rolinda. Orange-bronze.....	Medium	Nov. 20-Dec. 1	3.00	25.00
*Rose Madder. Deep rose-pink.....	Medium	Oct. 25	12.00	100.00
*Smith's Innocence. White.....	Tall	Nov. 5	5.00	40.00
*Stoplight. Terra cotta petals with low yellow cushion..	Medium	Nov. 5	3.00	25.00
†*Sunshine. Yellow .....	Short	Thanksgiving	3.00	25.00
*Susanne Miller. Yellow. Sport of Norma.....	Tall	Nov. 10-Dec. 1	3.00	25.00
*The Belle. Pure white.....	Medium	Nov. 1-5	3.00	25.00
*The Titan. Scarlet-crimson with bronzy red cushion....	Medium	Nov. 5	3.00	25.00
*Topknot. Creamy white cushion, rosy pink petals.....	Tall	Nov. 5	5.00	40.00
*Triumph. Golden bronze .....	Medium	Oct. 25	3.00	25.00
*Tuxedo. Pink .....	Medium	Nov. 10	5.00	45.00
*Verona. Golden buff, full cushion.....	Medium	Oct. 20	3.00	25.00
Volunteer. Yellow .....	Medium	Thanksgiving	3.00	25.00
*White Berneita. White .....	Medium	Nov. 1	3.00	25.00
*White Norma. White .....	Medium	Nov. 1	10.00	90.00
Yellow Garza Supreme. Yellow.....	Short	Dec. 1	3.00	25.00

## Hardy Varieties

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
A. Barham. Orange-bronze.....	Short	Decorative	Oct. 1	\$3.00	\$25.00
Adelaide. Mahogany .....	Medium	Button	Early Oct.	3.00	25.00
Albert Muller. Apricot suffused with pink .....	Medium	Decorative	Oct. 1	7.00	65.00
Alice Howell. Orange-yellow.....	Medium	Single	Oct. 5	3.00	25.00
Aladdin. Bronze .....	Short	Decorative	Sept.	3.00	25.00
Amelia (Pink Cushion). Bright pink....	Short	Decorative	Sept.	3.00	25.00
Barbara Cumming. Yellow shading to bronze .....	Medium	Decorative	Sept.	3.00	25.00
Carrie. Yellow .....	Medium	Decorative	Early	3.00	25.00
Cavalier. Rich vermilion-red.....	Tall	Single	Oct. 15	6.00	50.00
Crimson Splendor. Crimson .....	Medium	Single	Sept.	5.00	45.00
Daybreak. Shell-pink .....	Medium	Single	Oct. 10-15	3.00	25.00
Dazzler. Cardinal-red .....	Medium	Single	Oct. 10-15	3.00	25.00
Donald Wells. White .....	Medium	Single	Sept.	3.00	25.00
†Early Bronze. Bronze.....	Short	Button	Sept.	3.00	25.00
†Eden. Rose-pink .....	Short	Decorative	Oct. 1	3.00	25.00
Evelyn. Bronze .....	Medium	Decorative	Oct. 1-5	3.00	25.00
Excelsior. Yellow .....	Medium	Button	Oct. 15-20	3.00	25.00

\*Good disbudded.

†Good as pot plants.

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## Hardy Varieties (Continued)

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
<b>Francis Whittlesey.</b> Rich bronze and garnet .....	Short	Decorative	Sept. 30	3.00	25.00
<b>Ganna.</b> Bright pink .....	Medium	Decorative	Oct. 12	3.00	25.00
<b>†Glada.</b> Soft pink.....	Short	Decorative	Sept.	3.00	25.00
<b>Glomero.</b> Bronzy orange .....	Medium	Button	Oct. 5	3.00	25.00
<b>Granny Scoville.</b> Warm coral-bronze..	Dwarf	Decorative	Oct. 15	6.00	50.00
<b>Grenadier (Hardy).</b> Crimson-red.....	Medium	Single	Oct. 5-10	3.00	25.00
<b>Gypsy Girl.</b> Chestnut-crimson.....	Short	Single	Early Oct.	3.00	25.00
<b>Harvest Moon.</b> Golden yellow.....	Short	Button	Oct. 15-20	3.00	25.00
<b>Hilga.</b> Bluish magenta .....	Short	Decorative	Oct. 15	3.00	25.00
<b>Jack Bannister.</b> Light yellow.....	Medium	Decorative	Oct. 10	3.00	25.00
<b>Jean Cumming.</b> White .....	Medium	Decorative	Sept.	5.00	45.00
<b>Jean Treadway.</b> Pink with dark center.	Medium	Decorative	Oct. 1-10	5.00	45.00
<b>Little Barbee.</b> Red.....	Medium	Button	Oct. 15-20	3.00	25.00
<b>Little Bob.</b> Dark bronze.....	Short	Button	Oct. 1	3.00	25.00
<b>Lorelei.</b> Yellow .....	Medium	Decorative	Sept. 10	3.00	25.00
<b>Meduse.</b> Terra cotta bronze.....	Medium	Decorative	Oct. 5-15	3.00	25.00
<b>Mayellen.</b> Cerise-pink .....	Medium	Decorative	Sept. 15-Nov. 1	3.00	25.00
<b>Metzi.</b> Yellow .....	Medium	Button	Oct. 15-20	3.00	25.00
<b>Mrs. Calvin Coolidge.</b> Cardinal-red....	Medium	Single	Oct. 15-20	3.00	25.00
<b>Mrs. J. Willis Martin.</b> Blending of crimson and crushed strawberry....	Medium	Decorative	Oct. 10	3.00	25.00
<b>Mrs. L. Birchard.</b> Shell-pink.....	Medium	Button	Oct. 10-15	3.00	25.00
<b>Muldoon.</b> Purplish amaranth.....	Medium	Button	Oct. 12	3.00	25.00
<b>Murillo.</b> Pink .....	Medium	Decorative	Oct. 12	3.00	25.00
<b>Normandie.</b> White .....	Short	Decorative	Sept.	3.00	25.00
<b>October Dawn.</b> Shell-pink .....	Medium	Decorative	Oct. 5-15	3.00	25.00
<b>October Girl.</b> Rose-pink.....	Short	Decorative	Early Oct.	3.00	25.00
<b>Olga.</b> Pink .....	Medium	Decorative	Oct. 10	3.00	25.00
<b>Provence.</b> Soft pink blended with yellow .....	Medium	Decorative	Sept.	3.00	25.00
<b>Red Flare.</b> Bright red.....	Medium	Button	Oct. 15	3.00	25.00
<b>R. Marion Hatton.</b> Canary-yellow.....	Medium	Decorative	Oct. 1-10	3.00	25.00
<b>Rosy Gem.</b> Bright pink or rose.....	Medium	Decorative	Oct. 15	3.00	25.00
<b>Ruth Cumming.</b> Reddish bronze.....	Medium	Decorative	Early Oct.	3.00	25.00
<b>Ruth Hatton.</b> Ivory-white.....	Short	Decorative	Oct. 10	3.00	25.00
<b>September Queen.</b> White .....	Short	Decorative	Sept.	3.00	25.00
<b>Skibo.</b> Pure yellow .....	Medium	Button	Oct. 15	3.00	25.00
<b>Sonoma.</b> Bronze with golden reverse....	Short	Decorative	Oct. 1	3.00	25.00
<b>Tasiva.</b> White .....	Medium	Decorative	Sept.	3.00	25.00
<b>Vivid.</b> Rosy crimson.....	Medium	Decorative	Oct. 1-10	3.00	25.00
<b>Winnetka.</b> White .....	Medium	Decorative	Oct. 1	3.00	25.00
<b>Wolverine.</b> Yellow .....	Medium	Decorative	Sept.	3.00	25.00
<b>†Yellow Gem.</b> Canary-yellow.....	Medium	Button	Oct. 5-10	3.00	25.00
<b>Yellow Normandie.</b> Yellow.....	Medium	Decorative	Early	3.00	25.00
<b>Zaza.</b> Yellow with orange at base of petals .....	Short	Decorative	Oct. 15	3.00	25.00

\*Good disbudded.

†Good as pot plants.

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# Korean Hardy Varieties

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
Apollo. Bronze-red.....	Medium	Single	Oct. 12	\$10.00	\$90.00
Ceres. Old gold.....	Medium	Single	Oct. 10	10.00	90.00
Country Girl. Pink.....	Tall	Single	Oct. 10	10.00	90.00
Daphne. Pink.....	Medium	Single	Oct. 12	10.00	90.00
Diana. Rose-pink.....	Medium	Single	Oct. 12	10.00	90.00
Hebe. Lavender-pink.....	Medium	Single	Oct. 15	20.00	.....
Innocence. White.....	Short	Single	Sept.	6.00	50.00
Louise Schling. Bronze-salmon.....	Medium	Single	Oct. 5	10.00	90.00
Mars. Wine-red.....	Medium	Single	Oct. 15	10.00	90.00
Mercury. Blend of old rose and salmon.	Medium	Single	Sept. 30	10.00	90.00
Orion. Canary-yellow.....	Medium	Single	Oct. 5	20.00	.....
Vulcan. Bronze-crimson.....	Medium	Single	Oct. 5	20.00	.....

# Pot Plant Varieties

In addition to varieties listed here as essentially intended for pot plant culture, many of the varieties listed under pompons are excellent as pot plants. Short and medium sorts should be used for this purpose. (A number of such varieties are denoted by the character †).

Name and Description	Height	Type	Matures	Price	
				Per 100	Per 1000
Benoit. Cerise-pink.....	Short	L. Pompon	Oct. 20-25	\$3.00	\$25.00
Bright Light. Bright yellow.....	Short	L. Pompon	Nov. 20	3.00	25.00
*Bronze Prince. Bronze.....	Short	L. Pompon	Nov. 1	3.00	25.00
Caprice, Butler's. Deep pink.....	Short	L. Pompon	Oct.	3.00	25.00
Caprice, Lilac. Deep lilac.....	Short	L. Pompon	Oct.	3.00	25.00
Caprice, Purple. Purple.....	Short	L. Pompon	Oct.	3.00	25.00
Caprice, White. White.....	Short	L. Pompon	Oct.	3.00	25.00
Caprice, Yellow. Yellow.....	Short	L. Pompon	Oct.	3.00	25.00
Eileen Masson. Dark rose. Dwarf plant and very early.....	Very Short	Single	Oct.	3.00	25.00
Floradora. Light bronze florets, orange cushion .....	Short	Anemone	Nov. 1	3.00	25.00
Greystone. Golden orange.....	Short	L. Pompon	Nov. 10	3.00	25.00
Kathleen Thompson. Bronze.....	Short	L. Pompon	Oct.	3.00	25.00
Ohio State. Yellow.....	Short	Anemone	Nov. 1	3.00	25.00
Patty. Pink.....	Short	L. Pompon	Late	3.00	25.00
Pygmy. Light pink.....	Short	L. Pompon	Nov. 10	3.00	25.00
Savanta. White with tint of pink.....	Short	L. Pompon	Nov. 1	3.00	25.00
Titian Beauty. Deep rich bronze shad- ing in center to scarlet.....	Short	Anemone	Nov. 25	3.00	25.00
W. H. Lincoln. Yellow.....	Short	L. Pompon	Late	3.00	25.00

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# Latest Developments in Culture Of Chrysanthemums

Following is an address by Geo. J. Ball at the meeting and short course of the Society of Iowa Florists, Ames, Ia., November 23, 1935.

There are approximately 20,000 florists retailing in the United States. For the sake of a figure, let us say their average sale of chrysanthemums will be \$250. On that conservative basis the crop would value, to the growers, five million dollars! That might explain the increasing interest in the Chrysanthemum Society of America. Most encouraging, too, is the favor that unfailingly greets the annual return of the chrysanthemum.

Back in the early so-called gay 90's, I well recall an authoritative statement to the effect that the chrysanthemum craze had about spent itself, for it was hardly thought possible to make further considerable improvements in the mum. This was recognizing the fact that interest in any class of plants can only be maintained by improvements or variations. How fortunate that we so well appreciate this! About that time a young fellow, Elmer D. Smith, evidently disagreed with this statement, for he has to his credit since those days the amazing accomplishment of having produced 615 accepted varieties! The dollar value of this work is not readily appreciated. And that unassuming genius, Alex Cumming, at Bristol, Conn., who is introducing the virility of Korean varieties into our stock, believes the dawn of real chrysanthemum prosperity is just breaking. And in the light of his recent work with the small-flowered class, I believe he is right. It is perfectly clear that the prosperity of any florists' stock depends on such outstanding plant breeders. Would it not be good business to supplement the satisfaction in this work with more substantial encouragement?

## Shading of Plants.

By far the most valuable contribution that has been made to mum culture is the discovery of the fact that chrysanthemums can be classed as short-day plants, meaning that they are induced to flower or set buds by shortening the days. This was worked out a dozen years ago and full commercial advantage of this discovery was not taken until eight or nine years later. Especially valuable is this early-flowering method to our growers because

of heavy inroads on our markets by the more economically produced and naturally earlier-flowering California product.

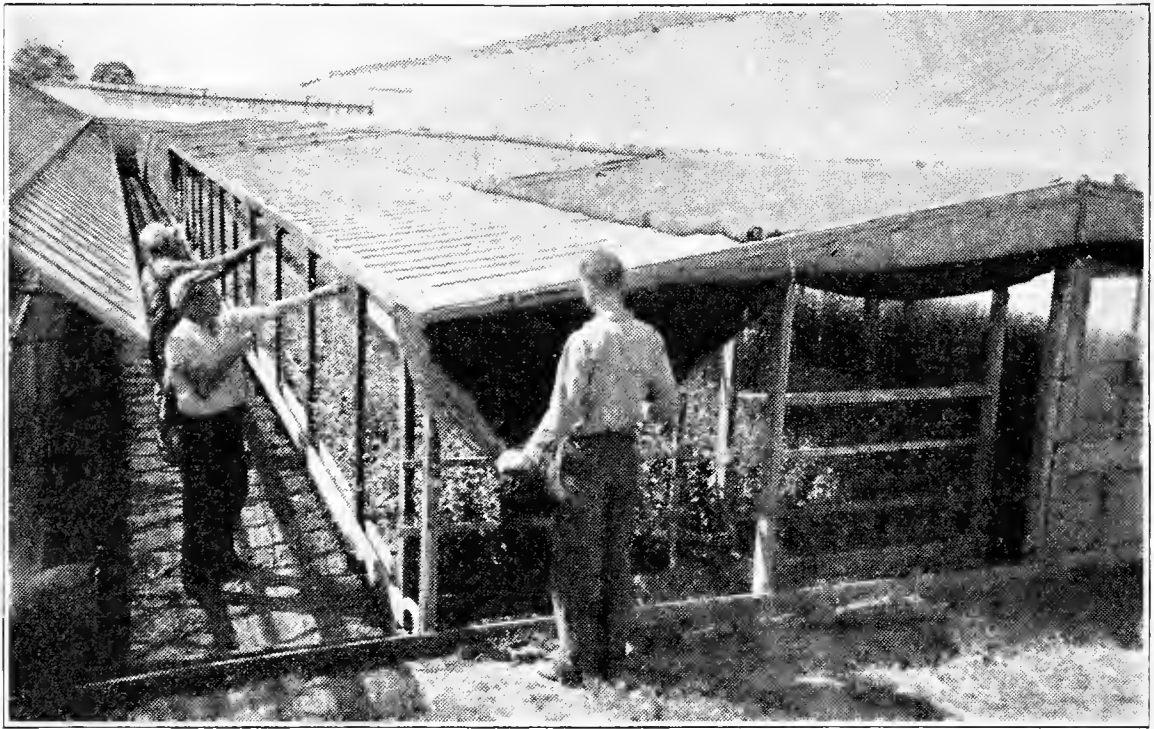
Briefly put, the premature shortening of days for mums is done by covering and so darkening them with black light-proof cloth about 6 o'clock in the evening and removing it about 7 o'clock in the morning. Though air circulation about the plants is shut off, no harm is done. Remember that the cloth is on only to shorten the daylight hours; the cover is not needed after dark. That is all there is to it, except some plain, easily carried-out requirements, the fundamental one being early planting. In our latitude planting should be completed early in May, not later than immediately after Mothers' day. The necessity of this is due to the buds' setting much earlier, after which the stems, of course, cannot lengthen greatly, not over twelve inches for the shorter-stemmed standards and sixteen to eighteen inches for the taller, with the pompons hardly more than half that. We use largely February propagation, but if this early stock becomes hardened or is overcrowded, March-started plants will be much better.

More damaging to the future crop than many growers realize is a check to growth, especially of young stock. Late planting of stock or its not having enough growth when shading is started explains the short-stemmed flowers frequently noted about most markets. We might sell such stock under market conditions like those of last fall, but only long-stemmed, clean stock will average a profit. So, if the growth is not up as suggested, better forget the shade and give the plants time enough to draw up and come normally.

## Suitable Varieties and Spacing.

We have found most varieties of pompons suitable for this early, or September flowering. A few are too soft for the occasional warm weather they will be exposed to. The pink Leilah and that old-timer, Uvalda, are varieties that warm weather easily turns brown with decay. Varieties we have found excellent and that we use largely

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Showing method of applying black-cloth shade. This shading plan requires two men, a half-hour to let down the cloth, and the same time to put up. John L. Lunsted of Clifton, N. J., does this more efficiently by running a shaft down center, inside of house, to which are attached the controlling ropes. With a crank on shaft, all the cloth is rolled up and down at once with ease.

are: Nuggets, Pink Dot, Dream, Chicago Pearl, New York, Irene, Betty Watkins, Mrs. Wilcox and Silver Ball disbudded. And there are plenty of others, for any variety will do except such as are soft.

I should qualify this by stating that excessive heat and strong sun in late September will fade some life out of most pink and bronze varieties. November varieties in these colors come well with us flowered around October 1, or with cooler weather.

Our spacing of pompons is 8x8 inches, except New York, which does not seem to break so freely, so that the spacing should be closer, 6 or 7x8 inches, according to the strength of the plants. We top all pompons for black-cloth shading around June 10—not much later. Our spacing for nearly all standards is 6x8 inches, one flower to a plant. Most retail growers carry some three to five to a plant, producing medium-size flowers to good advantage, but where one depends on a highly competitive wholesale market the culture must be different.

#### Hardness.

Among the big standards, too, there is considerable difference in hardness of flowers, and when losses occur through rot, it hurts. Much loss through spotting or rot of even good,

hard varieties is caused by running houses too cold and damp. It is all right to carry them quite cool, but do so with plenty of ventilation day and night.

Give the choice of varieties close consideration, using untried ones in a tentative way. A trial lot of Tom Browne was a total loss this season with us. Ambassador we find soft when flowered late in September, but fine in early October. In fact, size in most flowers seems to be attained at the cost of hardness. A classical example is the Turners. Under favoring conditions, these big fellows will finish splendidly. But summer conditions frequently settle on our latitude the last half of September, and only the hard ones will stand it.

Silver Sheen we find as nearly perfect as it can be. It is a good size, too, when well grown, and white is always wanted. Mrs. Kidder is our favorite yellow, and Friendly Rival is the same golden yellow in September as in November. Late September weather will fade Gladys Pearson to nearly a clear yellow; the variety is unusually good, though. So is Citronella. This variety is rather short-stemmed and must have an early start. Most of our mums are grown in cold, or sash houses, with well drained ground beds. For reasons we cannot ex-

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plain, *Citronella* does not get into good growth under these sash-house conditions, but is fine with us in the regular greenhouses. Marie De Petris we find excellent; so are Norma and Source d'Or and the new single Valencia dis-budded—three to four to a plant.

The big standards will set buds in three to four weeks of black-cloth treatment, and after buds are taken, shading is discontinued. This applies to all the disbuds. Pompons should be shaded until the center buds show color. This is necessary in order to have plenty of lateral buds set. Failure to prolong shade on pompons will leave some lateral growth blind. In making plans for planting, one must keep this difference in the shading period in mind.

Early-flowering varieties in both classes will set buds and flower somewhat earlier than will late ones. For this reason only regular October-flowering kinds should be used for flowering about mid-September. However, the past season we flowered in our cold houses Friendly Rival and New York September 25 from plants on which shading was started July 15.

#### **Sash, or Cold Houses.**

We maintain a close cost accounting system of all crops grown, and mums in our big, costly houses frequently do not show a profit because of investment and depreciation charges. Do not forget that one way or another these charges must be met. For several years we have moved our mum growing to what we call sash, or cold houses such as seen in the illustration on page 20. Because of their low overhead costs, we have been able to make these houses profitable to the extent of about 10 cents per square foot of bench space, all costs counted. There are three good reasons for this: (1) Entire crop was flowered in September through shading, (2) low cost of houses used and (3) better quality of stock through use of these open, comparatively cool houses.

Any available material is used in their construction, which consists of nothing but roof. The sides are left entirely open. To protect the stock against a possible freeze and to develop a short spring crop before mums are planted, we use on the sides a heavy canvas material that is readily hooked into place. In addition, 1-inch steam lines are run through, for even late September mums sometimes need the drying effect of artificial heat during wet weather. Pompons, however, would hardly require this. In our lati-

tude we can keep frost out of these houses after March 1.

#### **To Follow Mums.**

An important possibility in connection with the mum crop is something that can be planted or started up early in March and cleared out not later than Mothers' day. Darwin tulips fit in exactly. They are planted right after mums are cleared out and are cut out in time to plant mums. If heat is turned on and the house is closed in early in March, tulips can be flowered from a late Easter to Mothers' day, and for a business that retails its product, they would, no doubt, pay. But with our dependence upon a wholesale market, our returns seldom exceed costs, low as they are.

We are trying a number of annuals and perennials this season and feel confident that something to fit in this early short period can be found. We are trying the Elder type of perennial daisies, and there are a number of strains that flower outdoors in June that might fit in. Delphinium has possibilities, particularly the chinensis type known as Cambridge Blue, which flowers normally in seven months from seeds. And there are annuals such as candytuft, snapdragons, centaureas, gypsophila and others that could be sown in January, carried on in flats or pots and run into these cold houses in March, a season when indoor space is at a premium or should be.

Getting back to our subject—to spread the maturing of the crop, we apply black-cloth shading to our mums on three separate dates, July 15 and 25 and August 5. This sequence matures the crop from September 12 to 15, to early October. When the large standards open, we protect them with a fairly heavy shade. This not only reduces the heat somewhat, but a September sun inclines to burn the blooms, especially if they are soft. This burning or rotting of petals is the one weak factor of the early-flowering plan and must be guarded against, especially in the selection of varieties, already touched upon.

#### **In Applying Cloth.**

As seen in one illustration, we apply cloth over the entire house in sections eighteen feet wide. Each section over the house is in one piece and is nailed to the ridge with a lath. Three-inch round poles are attached to the ends of the cloth by means of which the cloth is rolled up or down with a rope and pulley attached to the ridge. To prevent possible leaking of light, we allow a lap of twelve inches in joining

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the sections. The houses pictured are 22x140 feet; 674 square yards of cloth cover this—sides and top.

If the plan whereby each bed is covered individually were used, 1,008 square yards of cloth would be necessary for standard mums, for which the shade should be five feet high, and 720 square yards for pompons, which call for shade about three feet above the ground level. These figures are presented to show the actual cloth saving in covering the entire house when it is not a large one. Whatever plan is used must be made to fit the house. If it is a large one without obstructing posts, cloth will be conserved by covering the entire area inside as one large bed.

We use a black sateen cloth, which costs around 15 cents per square yard. We find this material will last at least three seasons if properly cared for. As far as we know, this is the most suitable for this purpose. Any opaque material will do.

In the list of shading dates, given below, it will be noted that cloth used on the earliest-shaded lot of large mums will be free to use again on the last lot, considerably reducing cloth costs.

#### Chrysanthemum Shading Dates.

Varieties	Shade Started	Shade Removed	In Full Crop
Silver Sheen.....	Aug. 1	Aug. 20	Sept. 25
Citronella .....	Aug. 1	Aug. 20	Oct. 5
Norma .....	Aug. 1	Aug. 25	Oct. 10
Silver Ball .....	Aug. 1	Aug. 25	Sept. 25
Irene .....	Aug. 1	Aug. 25	Sept. 25
Adelaide .....	Aug. 1	Aug. 25	Sept. 25
Pink Dot .....	Aug. 1	Aug. 25	Oct. 3
Dream .....	Aug. 1	Aug. 25	Oct. 6
Nuggets .....	Aug. 1	Aug. 25	Sept. 25
Source d'Or .....	Aug. 1	Aug. 25	Oct. 7
Gold Lode.....	Aug. 1	Aug. 20	Sept. 12
Friendly Rival....	Aug. 1	Aug. 20	Oct. 8

#### Following Are Results of Season '33.

Varieties	Shade Started	Shade Removed	In Full Crop
Ambassador .....	July 15	Aug. 8	Sept. 10
Quaker Maid.....	July 15	Aug. 8	Sept. 10
Celestra .....	July 15	Aug. 8	Sept. 12
Norma .....	Aug. 22	Sept. 9	Oct. 20
Citronella .....	July 15	Aug. 8	Sept. 10
Citronella .....	July 25	Aug. 15	Sept. 25
Mrs. Wilcox (Beu) .....	Sept. 10	Oct. 7	Nov. 10
Source d'Or .....	Aug. 22	Sept. 9	Oct. 20

Some fairly successful attempts have been made the past season in growing pompons under black cloth in the open without glass shelter, but under the protection of cheesecloth throughout the season. This has raised fears of low-priced overproduction. I do not believe that clean, long-stemmed flowers will be consistently grown in this way or that the method will average a profit. The effect of exposure to wind and rains, especially as the flowers are ready to develop, is to mar that finish and color that can only be had under glass protection. Good buyers quickly note the difference. Such second-grade

stock will doubtless be something of a competitive factor affecting the returns on good, clean flowers, but with plenty of high-grade stock available, second-grade flowers are not profitable.

Perfectly finished flowers are not so important in pot plants, which can be readily and economically grown in the open and shaded for early flowers. In fact, more shapely plants are produced this way than when grown normally, the early flowering leaving them dwarfer—a prime point in a mum pot plant. Plenty of well grown pot plants of varieties ordinarily not ready until mid-October can be sold as the atmosphere of fall sets in late in September.

#### Disease.

Chrysanthemums are inherently cool-temperature plants and naturally resistant to disease if given a chance to be. But I do occasionally—yes, frequently—meet growers with weak, “sick” plants who want to know with what “disease” the plants are affected. The fundamental requirement for a successful crop is starting with strong, clean young stock; when such plants get into clean, well drained soil, are not overwatered at any time and are kept free of aphids, there will, ordinarily, be no disease affecting the mums. A careful experienced grower can nurse weak young stock along and come out all right with it—maybe. But as a rule, it will be more profitable, if it may be put that way, to leave the beds idle than to fill them with such a start.

As has been shown, the profit margin in this crop is close, and with a handicapped start, it easily slips to the debit side. I speak from the standpoint of a market grower. Perhaps the more fortunate retail grower feels that he does not need to figure so closely. That is a mistake. The weak, scrawny stock we have all sometimes seen is usually due, not to a disease, but to poorly drained old soil, which rots away all roots the weak plants attempt to make. If an example is wanted of the value of fresh young stock, just divide and plant some old stock plants, a thing most of us have tried to do.

#### In Open in Summer.

The practice of using for propagating stock plants that have been subjected to a hot greenhouse all summer is a general one and I feel certain that it will slowly but certainly weaken the chrysanthemum. This belief is based on the fact that all forms of life change or adjust themselves to the conditions in which they are placed. More natural treatment, one that will result in

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decidedly more vigorous, clean young plants, is to grow propagating stock in the open field during the summer. This treatment will usually, in one season, restore enough native vigor to free the plants of midge, which spreads disastrously under glass. In propagating young stock for this purpose, use short-jointed cuttings, such as have plenty of eyes from which to break. Cuttings without eyes at the base or below the soil will, of course, be unproductive of growth for propagating. Cuttings with a single eye can be used, but not, of course, for propagating.

Another point in producing normally hard cuttings, such as will not be swept away with rot in the sand, is the use of a shallow raised bed in a light house for stock plants. A deep ground bed of old soil that does not drain promptly is responsible for stock plants' frequently turning yellow and rotting out. Wintering them under benches with little attention often accounts for the active demand for young stock around planting time.

The necessary and rather costly care of stock plants raises the question of whether or not it pays the grower, especially one whose planting is limited, to do his own propagating. When properly cared for, stock plants occupy valuable space all winter, and kept clean of insects, particularly midge, they represent a substantial cost. And there are frequent losses in the sand and much time used in propagating during the busy spring months when the value of time is at its height. Accurate cost figures on rooted cuttings are sometimes surprising when all costs are accounted for. In our records the costs per cutting usually run close to 2 cents, and with much rotting in the sand, they might run higher. When this work is carried out on a large scale with a competent man responsible for it, this figure can be reduced somewhat. But the fact that costs increase in producing smaller quantities is undeniable. Swapping stock plants with neighbors is an excellent plan of exchanging soil disease and insects. Watch for the possibilities involved in this.

The life of any line of business depends on the stimulation of variety. How well we are daily reminded of it! Our business is no exception to this reaction to change. There is plenty of appealing chrysanthemum variety among recent novelties, and how necessary it is to keep up with them!

#### **Small-flowered Class.**

Outstanding improvements in the small-flowered class explain its as-

cendancy the **past** few seasons and this will increase with the vitalizing influence of the Koreans.

The new Bristol variety, Glow, is a medium-size bronze with a glowing orange suffusion. It will make a hit and be right for Thanksgiving. Fez improves New York in size, is about a week later and holds its color better. Yellow New York is a choice, midseason yellow button. Last season's Princeton, a deep golden yellow, shaded orange, has taken well. For late September flowering with black cloth, do not overlook Nuggets and Pink Dot. Dream, a semidouble, long-stemmed flesh pink, is choice to get in about October 1 or its natural season, early November.

Taking in the fall shows is necessary for one to appreciate the recent advances in singles. Tagoya, a medium-size midseason variety, should head the list of new ones; it is bronze with a metallic rose sheen. Last season's Valencia is a soft rose-pink that is striking—disbudded and three or four blooms to a plant. Red Rover is a large bronze, especially when disbudded. Sonny Boy is probably the leader in single yellows, but Gretchen Piper is not far behind it. Red Radiant is an exceptionally bright color, and we find it sells on sight.

The outer petals on most varieties make it difficult to ship anemone-type chrysanthemums well, but there are some exceedingly choice kinds among them. They should particularly interest the retail grower, for they provide a showy variation. The Forrest Bebb exhibit of potted plants in this class at the Detroit show was a demonstration of their value for pot plant purposes.

Tuxedo is an extra-large, beautiful light rose-pink.

The Titan is scarlet crimson, with a bronze cushion. As noted at all the shows, this is another extra-large variety, but such flowers call for disbudding.

Rose Maddier, another extra-large flower of a deep rose-pink, is attractive. Orchid Beauty, orchid rose-pink, with a light center, is highly attractive; do not miss it. Rio Rita is an exceptionally clear bright yellow. Purple Queen is a rich purple rose, quite dark.

Difficult indeed is it to improve on the big chrysanthemums of today. Black-cloth shading will call for special attention in producing a hard-flowered kind, not only to hold up under the summer conditions to which chrysanthemums are sometimes exposed, but to stand handling without showing the

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effect of it too easily. The new Baur-Steinkamp white Marketeer is a most promising commercial white. Secretary Nehrling appeals as an attractive variation in color, which is bright yellow, with some bronze red shading when grown cool. Good News is a golden yellow break from Detroit News, which means a hard flower and early; the variety is ideal for shading.

For high-class trade, and that is what we all cater to, of course, the following will be interesting and for that reason valuable. Floyd Gibbons, salmon pink with the reverse of the petals buff, makes an attractive color for the buyer

looking for something different. Eva Le Gallienne is highly distinctive in color and form. The introducer describes the color as "crushed raspberry, with a brilliant tufted center of clear gold." The name, form and color will appeal to your select trade.

#### Twelve Best Standards.

Following is the unanimous choice of three midwest wholesalers: Yellow, Citronella, Mrs. Kidder, Marie De Petris and R. M. Calkins; white, Silver Sheen, Betsy Ross, Ambassador and Monument; pink, Pink Chief and Helen Frick, and bronze, Detroit News and Gladys Pearson.



One of our cold houses—pipe-frame construction. No ventilators, and side walls are open. Ideal growing conditions for this crop. Silver Sheen is shown. We find it an excellent early white. Some growers report Betsy Ross even better for this early crop. Stock shown was planted May 5, shading begun July 15, photographed September 12.

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